ABSTRACT OF THE DISCLOSURE

An Asynchronous Transfer Mode (ATM)-based distributed virtual tandem switching system is provided in which a network of ATM-based devices is combined to create a distributed virtual tandem switch. The system includes an ATM switching network that dynamically sets up individual switched virtual connections. The system also includes a trunk interworking function (T-IWF) device and a centralized control and signaling interworking function (CS-IWF) device. The trunk interworking function device converts end office voice trunks from TDM channels to ATM cells by employing a structured circuit emulation service. The centralized control and signaling interworking function device performs call control functions and interfaces narrowband signaling and broadband signaling for call processing and control within the ATM switching network. Consequently, the ATM based distributed virtual tandem switching system replaces a standard tandem switch in the PSTN.